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ABSTRACT

In recent years much attention has been given to the identification of social and psychological factors that may account for differences in the achievement of student in American schools. A wide range of studies has demonstrated that the family's socioeconomic status and racial background, as well as the socioeconomic and racial composition of the school's student body, are correlated with both student achievement and mean school achievement. The high correlation between family background and school composition in both individual and mean school achievement, however, does not demonstrate that these variables are the cause of differences in achievement. The small number of exceptions at least suggests that a significantly higher achievement is possible in low SES schools, and that significantly lower achievement sometimes occurs in high SES schools. Similar exceptions to the major regression line demonstrate that reasonably high achievement is possible in low SES black schools. The present research is an attempt to identify some factors that may explain the differences in the level of achievement among schools with similar socioeconomic status and racial composition. (Author)

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ACADEMIC ENVIRONMENTS AND ELEMENTARY SCHOOL ACHIEVEMENT

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of the

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In recent years much attention has been given to the identification of social and social psychological factors that may account for differences in the achievement of students in American schools. A wide range of studies has demonstrated that the family's socio-economic status and racial background, as well as the socio-economic and racial composition of the school's student bodies, are correlated with both individual achievement and mean school achievement. The high correlation between family backgroumd and school composition in both individual and mean school achievement, however, does not demonstrate that these variables are the cause of differences in achievement. The small number of exceptions at least suggests that a significantly higher achievement is possible in low SES schools and that significantly lower achievement sometimes occurs in high SES schools. Similar exceptions to the major regression line demonstrate that reasonably high achievement is possible in low SES black schools. The present research is an attempt to identify some factors that may explain the differences in the level of achievement among schools with similar socio-economic status and racial composition.

This research develops out of a major stream of American research on school social context in relation to school achievement and we believe

contributes significant advances in our knowledge of these social phenomenon. Although there has been an extensive line of studies over a period of years leading to the present research, the most comprehensive has been the analyses of the data obtained in the Equal Educational Opportunity study (Coleman et al., 1966; Mayeske, et al., 1969; Marshall Smith in Mosteller and Moynihan, 1972.) All of the various analyses of this extensive study demonstrate that family SES and racial background are significantly correlated with school achievement and that the school social composition and attitudinal variables associated with the family SES and racial background are more correlated with school achievement than any other school variables studied. Mayeske's attempt to identify the unique contribution of each of several clusters of family background and school variables indicates that these variables are highly interactive and that only a small portion can be attributed to a single set of variables. The recent examination of relevant data by Jencks and his associates fails to clarify the sometimes different findings concerning the effect of school composition on achievement. (Jencks, et al., 1972)

In a study of 20 selected white high schools, McDill, Meyers, and Rigsby identified a series of institutional or social climate variables which accounted for most of the variance in achievement that might be attributed to the socio-economic composition of the schools (McDill, et. al, 1967). This study indicated that high school academic norms and related factors may account for the variance in school achievement generally attributed to social context as measured by socio-economic composition.

Our study is designed to investigate similar factors in elementary schools but using a different kind of research design. Rather than investigating the

correlation between social or social psychological factors and school achievement, we designed the project to examine the unusual cases in comparison with typical schools. After a couple of years of searching unsuccessfully for elementary schools with similar socio-economic and racial composition but significantly different levels of achievement, the state of Michigan provided the means of identifying such schools. Complying with the state legislative requirement, the Michigan Department of Education undertook a state-wide assessment of elementary and junior high schools in 1969. Through the cooperation of the Michigan Department of Education, we obtained the school mean achievement for fourth grade students as well as the mean SES rating of the students in each school and the racial composition of each school. From these data it is possible to identify a small number of schools that did not fit the regression line formed by the correlation between mean school SES and mean school achievement. From these data we identified a series of pairs of elementary schools with each pair having similar SES and racial composition but significantly different levels of achievement. Table 1 below indicates the distribution of predominantly black and white schools by SES and achievement levels.

Table 1. Characteristics of Schools Selected for Study: Race, Mean SES, Mean Achievement Level, Urban-Rural Type, and Sample "N" of Students and Teachers

	School	SES Level	Achievement Level	Percent White	N Students	N Teachers
URBAN WHITE	01	Higher-55.1	Higher-59.6	85.0	140	6
	02	Higher-55.2	Lower -48.1	100.0	173	6
	03	Higher-54.4	Higher-58.2	100.0	224	9
	04	Higher-54.9	Lower -47.8	100.0	202	7
	05	Higher-50.1	Higher-58.0	100.0	88	3
	06	Higher-49.4	Lower -43.6	97.7	67	2
	07	Lower -43.2	Higher-56.7	100.0	104	4
	08	Lower -44.9	Lower -44.6	100.0	88	3
	09	Lower -46.6	Higher-55.1	97.7	151	6
	10	Lower -46.8	Lower -43.7	95.1	81	3
URBAN BLACK	11	Higher-61.3	Higher-55.1	30.0	276	6
	12	Higher-52.9	Lower -47.2	01.0	406	12
	13[a]	Higher-50.0	Higher-51.8			
	14	Higher-49.2	Lower -37.3	00.5	149	6
	15	Lower -43.8	Higher-47.2	00.8	116	6
	16	Lower -46.7	Lower -38.0	13.8	105	6
	17	Lower -47.0	Higher-49.6	09.5	105	4
	18	Lower -46.7	Lower -39.6	05.3	384	11
RURAL WHITE	19	Higher-53.2	Higher-58.1	100.0	16	2
	20	Lower -44.6	Higher-58.4	100.0	13	2
	21	Lower -42.9	Higher-58.2	100.0	18	1
	22	Lower -44.3	Higher-60.6	87.6	55	3
	23	Higher-50.7	Lower -50.2	100.0	62	3
	24	Lower -47.8	Lower -45.6	100.0	40	2
	25	Lower -37.8	Lower -42.5	100.0	9	1

[a]Chosen as part of the original sample, but we were not permitted to collect data.

Data derived from questionnaires administered to students, teachers, and principals were collected in 24 schools during the 1970-71 school year. The SES and achievement data used for sample selection were for the fourth grade in the previous year. The questionnaires were administered to all fifth grade students of each school and either a random sample or the complete fourth and sixth grades and the teachers of these students. This larger sample made it possible to check if the fifth grade population was representative of the upper elementary grades in each school. These upper elementary students were presumed able to act as reporters of the normative climate.

We have not investigated all the possible differences in this study. Evidence from previous research indicates that many school input variables such as facilities, teachers' educational qualifications and current ranges in class size are not likely to explain the differences in outcomes (Coleman et al., 1966). Our exploration focused on social and social psychological variables that previous research (McDill, Meyers and Rigsby, 1967; and Rosenthal and Jacobson, 1968) and social psychological learning theory (Brookover and Erickson, 1969, Johnson, 1970; Bachman and Secord, 1968; Boocock, 1972) suggest might explain the differences in achievement.

ANALYSIS

We sought to identify those climate variables which are significant predictors of mean school achievement. Because the number of schools was small, it was necessary to reduce the number of variables examined in the analysis. Although the student questionnaires included some previously validated scales, both the total student questionnaire items and the teacher questionnaire items were factor analyzed to identify the combinations of items that produced meaningful variables.

Student Factors

The first varimax rotation factor analysis was run using 63 attitudinal items from the student questionnaire. This formed factors on the basis of the responses of students considered as individuals, rather than treating students as nested within certain schools. The four factors which emerged from the student data were identified as: (1) student perceptions of the present evaluations-expectations of "others" in their school social system; (2) student perceptions of the future evaluations-expectations of "others" in their school social system; (3) student perceptions about the level of feelings of futility permeating the social system of the school; and (4) student perceptions of those academic norms stressing academic achievement which exist in their school and social system.

Factor 1. Student Perceived Present Evaluations-Expectations (S.P.P.E.E.) The evaluations-expectations variable of interest is divided into two separate school climate factors, on the basis of the four factor varimax factor analysis. High loading into the first of these variables were those items which concentrated upon the expectations and evaluations of "others" (parents, teachers, friends), as well as the students own "self-concept of academic ability" from the present through the completion of high school.[1]

Factor 2. Student Perceived Future Evaluations-Expectations (S.P.F.E.E.)

The second factor related to our evaluations-expectations variable of interest dealt with student perceptions of the beliefs of "others" (parents, teachers, friends) concerning the subject's chances of future academic accomplishments. Also loading highly on this factor were items related to the

1. The questionnaire items for each factor are listed in Appendix A.

student's future "self-concept of academic ability" and self-evaluation. More specifically, the high load items within this factor are those items related to the reported beliefs and perceptions of beliefs about college attendance and success.

Factor 3. Student Reported Sense of Futility (S.R.S.O.F.)

The most important items within this factor are a modification of the "sense of control" questions used by Coleman (1966). There are several additional items, however, which highly intercorrelated and thus loaded highly on S.R.S.O.F. These items dealt with student perceptions of teachers, and to a lesser extent of other students, feelings of hopelessness or lack of caring about academic achievement as a factor of school climate.

Items high loading, within the last student factor, were those assessing the student perceptions about the amount of pressure placed upon achievement by members of the school social system and school bureaucracy. Within this factor, the student perception concerning the evaluations-expectations of their principal appear to be intricately interwoven into the general normative academic push of the school environment. Other variables which have combined to form S.P.S.A.N. were items designed to measure the amount of student perceived competition-cooperation within the environment as well as the reported and perceived importance of the student role.

Teacher Factors

A second varimax rotation factor analysis was run on the basis of the inner correlations of 49 items from the teacher questionnaire. The procedure employed was exactly the same as that used in the analysis of the student data. The subjects (teachers) were treated as individual respondents, rather than using school mean scores of items as a basis for factoring.

From our responses, six interpretable factors eventually emerged. These factors were: (1) teacher present evaluations-expectations; (2) teacher future evaluations-expectations; (3) teacher perceptions of parent-student push for education achievement; (4) teacher reported push of individual students; (5) teacher reported feelings of satisfaction; and (6) teacher perceptions of the social system belief in student improvability.

Factor 5. Teacher Present Evaluation-Expectation of Students in their School (T.P.E.E.)

Just as in the case of the student factor analysis, the analysis performed on teacher data revealed the emergence of two separate evaluation-expectation factors; those items having a more present and those having a more future orientation. More specifically, items forming T.P.E.E. are those which pertain to teacher evaluations-expectations of students from the immediate present and continuing through high school.

Factor 6. Teacher Future Evaluation-Expectation of the Students in in their School (T.F.E.E.)

Factor Six appears to be the future of Factor Five, with most items dealing in teachers evaluations and expectations about their students and more specifically in the possibility of the students gaining entrance into and finding success in college. The remaining high load items are of a more general evaluations-expectations nature with the teacher both reporting for himself and giving his perceptions of the beliefs held by the school principal.

Factor 7. Teacher Perception of Parent-Student Push for Education Achievement (T.P.P.S.P.)

Those items which loaded highly on this factor were those which pertained to the amount of academic push which the teachers perceived to be coming from

sources other than school personnel. This, of course, appears to be closely interwoven with those questions designed to assess the perceptions of teachers about the educational values which were held within the homes of the students attending their schools. Also important high loading items on this factor are items dealing with student norms, stressing the desire for individual competition.

Factor 8. Teachers Reported Push of Individual Students (T.R.P.I.S.)

T.R.P.I.S. emerged as a factor with fewer loaded items (4) than the others which we have discussed thus far. The items comprising this factor were those which were designed to measure the amount of push that teachers were willing to exert upon individual students in order to encourage performance greater than the teacher expectations.

Factor 9. Teacher Reported Feelings of the Job Satisfaction (T.R.F.J.S.)

Another factor emerging from our factor analysis consisted of only three high load items, designed to assess the degree of teacher satisfaction with his present school, and with teaching in general.

Factor 10. Teacher Perception of Student Academic Improvability (T.P.S.A.I.)

The last factor to emerge was based upon items which were designed to report teacher perceptions of individuals belonging to the school social system and their beliefs (negative or positive) that past academic failure could be overcome. Specifically, this factor attempts to assess the belief, within the school social system that hard work will result in improved student academic performance.

Linear Regression Analysis on Achievement

Linear regression analysis was employed in the current study as a descriptive statistic used to distinguish between school achievement levels within our

selected sample of schools. Because this analysis is performed within a study which is exploratory and descriptive, having a small sample size and thus few degrees of freedom, the decision was made to use $\alpha=.10$ as the level of significance. Since our objective was to identify possible differences between schools we decided it was better to permit a type one error, accepting a variable as a significant predictor of achievement when it was not, than a type two error and mistakingly eliminating any of our independent variables from consideration in subsequent studies. Since our purpose was to generate, rather than test, hypotheses we use the statistical analysis with caution and careful interpretation.

The specific procedure used was a least square add linear regression analysis. This analysis was employed on the entire sample of 24 schools, placing into consideration their mean score on each of the 10 student and teacher factors after first eliminating that portion of the variance accounted for by SES, race, and urban-rural community type. The dependent variable was the mean fourth grade achievement score on the State of Michigan School Assessment Achievement Index for these schools.

The effects of SES, race, and urban-rural community type were controlled by placing them into the regression equation first. This allowed us to analyze the amount of variation in achievement which could be predicted by our 10 school normative academic climate factors beyond the amount of variation predicted by the design variables. The results of this analysis are presented in Table 2.

Table 2. Findings of Least Square Add Linear Regression Analysis for Achievement

Variable	R	R^2	Prob.	% Added to the Prediction of Achievement	Significance of β
SES Race Urban-Rural Interaction	0.5056	0.2556	0.109		
Student Sense of Futility	0.8395	0.7048	0.0005	.4492	<0.0005
Teacher Future Evaluations-Expectations	0.8962	0.8031	0.008	.0983	<0.0005
Teacher Reported Push Individual Students	0.9225	0.8559	0.023	0.528	<0.0005
Student Present Evaluations-Expectations	0.9418	0.8995	0.052	.0036	<0.0005
Teacher Present Evaluations-Expectations			0.191		

Thus we can observe that our method of sample selection is fairly successful in limiting the effects of our design variables (SES, race, and urban-rural) upon ahcievement. They account for less of the variance in achievement than is normally the case. This analysis also clearly demonstrates that by far the most important climate variable within our sample of schools is students' reported

sense of futility ($p<0.0005$), of which that part of S.R.S.O.F. not in common with the design variables accounts for 44.9% of the prediction of the variance in achievement. Other variables significantly contributing to the prediction of the variance in school achievement were: higher teacher perceived future evaluation-expectations ($p=.008$), less teacher reported need to push individual students ($p=.023$), and higher student perceived present evaluations-expectations ($p=.052$). These four school climate variables predicted slightly over 63% of the achievement variation among these schools. Thus, significant differences in these social-psychological climate factors do appear to exist between high and low achieving schools when the effects of SES, race, and urban-rural community type are controlled.

Linear Regression Analysis on Sense of Futility

As a consequence of the observed predictive ability of students' reported sense of futility on achievement, we analyzed the contribution of the other nine factors to the variance in students' sense of futility after the effects of SES, race, and urban-rural community type were removed. Table 3. represents our findings:

Table 3. Finding of Least Square Add Linear Regression Analysis for Sense of Futility

Variable	R	R^2		% Added to the Prediction of Sense of Futility	Significance of α
SES Race Urban-Rural Interaction	0.6320	0.3994	0.015		
Teacher Present Evaluations-Expectations	0.8069	0.6511	0.002	.2517	<0.0005
Student Perceived School Academic Norms	0.8569	0.7343	0.029	.0832	<0.0005
Student Present Evaluations-Expectations	0.8906	0.8147	0.042	.0804	<0.0005
Teacher Perceived Student Academic Improvability		0.192			

It appears that 41.53% of the variation in sense of futility among these schools is accounted for by three significant normative academic climate variables. First, a low reported sense of futility is found in those schools which also have a high teacher present evaluation-expectation (p=.002). Second, schools with a lower student reported sense of futility also have a more positive student perception of the presence within the school environment of norms stressing academic achievement (p=.029). Third, there exists

high student perceptions of the present evaluations-expectations of the probability of student achievement (p=.042). All of these variables appear to exercise an important indirect relationship to our original dependent variable, achievement. Two of the three (teacher present evaluation-expectation and student perceived academic norms) did not significantly add to the prediction of the variation of the achievement. Although not significant, it is worth noting that for the first time there is evidence of the possible importance of teacher perceptions about the belief held within the school social system that student academic achievement can be improved.

This analysis adds further weight to our earlier conclusion that high and low achieving schools can be differentiated by socio-psychological factors related to the school normative academic achievement environment. It also increases our understanding of the patterns of relationships existing between these variables.

Further Observations

Some further insight into the relationship between the climate variables identified and mean school achievement may be gained by some observation of particular comparisons and schools. By ranking factor scores within individual "match-ups" within racial and urban-rural stratum, and within the entire sample, the following relationships are observed:

1. Student reported sense of futility is lower for higher achieving schools in all white-urban, all black-urban, and all rural comparisons.

2. Student perceptions of future evaluations-expectations are more positive for higher achieving schools among all black- and white-urban pairs, but not for the rural schools.

3. Teacher present evaluations-expectations are more positive in the higher achieving schools among all the white-urban pairs and all but one of the black-urban pairs.

4. Teacher future evaluations-expectations of students are consistently more positive in the higher achieving black and white-urban schools of each pair of schools matched on SES.

5. The teacher present evaluations-expectations factor is generally more positive in our rural sample than in urban schools, but the teacher future evaluations-expectations factor is generally lower in rural schools than in the urban ones.

6. Teacher reported push of individual students is consistently lower in the higher achieving schools within the white-urban matched pairs, and all but one of the black-urban matched pairs.

7. Job satisfaction appears to have little relationship to achievement, but it does appear to have a relationship to SES among white and black-urban schools. Interestingly enough, teachers express higher satisfaction in lower SES black schools than they do in higher SES black schools, but teachers express greater job satisfaction in higher SES white schools than they do in lower SES white schools.

8. Teacher perception of student improvability does not appear to differentiate among white schools, but in the black-urban comparisons, it is consistantly more positive in the higher achieving schools.

Observation of the social psychological characteristics of the "atypical case" schools may provide some further basis for hypotheses concerning the combinations of climate variables that can produce high or low levels of achievement. By "atypical cases" we mean predominantly low SES schools having high mean levels of achievement and high SES schools in which mean student achievement was comparatively low.

School 02 is a low achieving, high SES and white-urban school. It had the lowest Student Perceived Present Evaluations-Expectations of all white-urban schools and is 20th among all the 24 schools studied on this factor; a low Teacher Perceived Parent-Student Push for Educational Achievement, being 9th among the 10 white schools and 20th of the 24 sampled; and the highest Teacher Reported Push of Individual Students of any white-urban school.

The teachers in this low achieving - high SES school apparently do not think the families demand much school achievement and they only push selected individual students for high achievement. They are relatively well satisfied with their jobs in this situation. The students in turn, do not think much is expected of them. They have not developed a high sense of futility compared to students in low achieving black schools, but their feelings of futility are similar to the low achieving, low SES white schools. None of these factors indicate that this should be a high achieving school.

School 07 is a high achieving, low SES and white-urban school. Compared to other schools some mean factor scores of interest are: a high Student Perceived Present Evaluations-Expectations; a low Student Reported Sense of Futility; and extremely low student Perceived Emphasis on Academic Norms, being the lowest in its strata and 22nd within the sample; a low Student Reported Push of Individual Students, again the lowest in its strata and 22nd of all schools sampled; and a low Teacher Reported Feelings of Job Satisfaction.

The students in this high achieving-low SES school appear to perceive that their significant academic "others" expect them to achieve in school. This in turn may explain the low teacher reported push of individual students and the low student perceived school academic norms in that when these expectations have been internalized by students there is no need for overt expressions of achievement desires within the school environment. Within this climate of high expectations and low push pupils manifest a lower sense of futility. However, even within this situation of high academic success teachers still do not seem to like working in low SES white schools.

School 12 is a low achieving, high SES, and predominantly black-urban school. Compared to other schools, some factor scores of interest are: a student perceived present evaluation-expectation which while not extremely low for schools which are predominantly black-urban it is the 22nd lowest of the 24 schools within the entire sample. School 17 also has an extremely low teacher perception of student academic improvability, being the lowest scoring school of the 24 sampled on this academic climate factor.

The students in this low achieving-high SES school appear to perceive that significant academic "others" do not expect them to perform well in school. Additionally, teachers appear to strongly believe that the students have little chance of improving academically in the future. In an environment where participants perceive no present and no future success, it would appear unlikely that high acadmeic achievement would follow.

School 17 is high achieving, low SES, and black-urban. Compared to other schools, the factor scores for School 17 are: the highest scores within the black-urban strata on student perceived school academic norms, teacher future evaluations-expectations, teacher perceived parent-student push for educational achievement, and teacher perception of student academic improvability; the lowest score within the black-urban strata for student reported sense of futility; an extremely high factor score for student perceived future evaluations-expectations, being the second highest for its strata and the third highest score of all schools sampled; and finally, although School 17 had a lower teacher push than its "matched" school, it was still the second highest ranked on this factor both among black-urban schools and for all schools sampled.

The teachers in this high achieving-low SES school appear to have an extremely hopeful attitude concerning students' future academic improvability and prospects for success. As one teacher reported to us, "If Johnny doesn't learn today, we'll see to it he learns tomorrow!" Students, in turn, have developed a high future expectation and a low sense of futility. The academic norms emerging from this situation are overtly positive and students in this school are among the highest achieving of all the black schools in the state.

School 22 is high achieving, low SES, and located in a rural area. It is matched with School 23 which is similarly low SES and rural, but low achieving. When compared with other rural schools, School 22 is characterized as having high student and teacher future evaluations-expectations, but low student and teacher present evaluation-expectations; the highest student perceived school academic norms for both the rural strata and the entire sample; and School 22 was also characterized as having a low teacher reported feeling of job satisfaction, being ranked as the 22nd lowest of the 24 sampled schools. School 23, on the other hand, has an extremely high student present evaluations-expectations, but a low student and teacher future evaluations-expectations; a high student reported sense of futility; low student perceived school academic norms; low teacher perceived parent student push for educational achievement; and high teacher push of individual students.

Observations of factor scores for individual school cases has led to the speculation that high and low achievement for schools of differing racial, SES, and/or community types may relate differently with levels and types of climate factors. For example, it appears entirely possible that for a high SES predominately, white-urban school, a moderate or relatively positive

normative academic climate may have a strong positive relationship with high academic achievement and that an extremely negative climate might relate positive to only moderately low achievement; while in the case of schools which are low SES and predominately black-urban, a moderate normative academic climate, either negative or positive, may still have low achievement with an extremely positive academic climate a necessary positive correlate of higher achievement. It also appears entirely possible that the relationship between particular climate variables and achievement may be different for different types of schools, as has previously been discussed for black-white school differences on such achievement factors as teacher perception of student improvability.

We recognize the limitations of this research; the non-randomness of school selections; the limited number of cases; the limited range of possible variables that may explain differences in achievement, studied and/or controlled and numerous others. It is not longitudinal or experimental as called for by Dyer and others (Moynihan and Mosteller, 1972). When we recognize the difficulty of manipulating school populations for experimental treatments or keeping them intact for longitudinal studies, this "after the fact" examination of the differences in school environment with composition controlled may make a significant contribution to our understanding of what effects school learning.

The Equality of Educational Opportunity Study (Coleman, 1966) clearly demonstrated that social class and racial composition were related to mean school achievement, but did not spearate these context effects from the social climate effects with which they are correlated. McDill and associates (McDill,

Meyers and Rigsby, 1967) demonstrated that some social-cultural climate variables accounted for most of the variance in high school math achievement usually attributed for most of the variance in high school math achievement usually attributed to social composition or context. This study extends this line of research into the elementary school and broadens somewhat the range of climate variables considered.

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APPENDIX A

Factor 1. - Student Perceived Present Evaluations-Expectations (S.P.P.E.E.)

Proportion of Variance = .1117

Question #		Factor Loading Score
67.	Would your mother and father say that your grades would be with the best, same as most, or below most of the students when you finish high school?	-.6700
44.	Would your best friend say that your grades would be with the best, same as most, or below most of the students when you graduate from high school?	-.6405
60.	Would your teacher say that your grades would be with the best, same as most, or below most of the students when you graduate from high school?	-.6378
65.	How good of a student do your parents expect you to be in school?	-.6297
59.	Think of your teacher. Would your teacher say you can do school work better, the same, or poorer than other people your age?	-.6130
37.	Forget how your teachers mark your work. How good do <u>you</u> think your own work is?	-.6028
58.	How good of a student does <u>the teacher you like the best</u> expect you to be in school?	-.6028
33.	When you finish high school, do you think you will be one of the best students, about the same as most of the students, or below most of the students?	-.5904
66.	Think of your mother and father. Do your mother and father say you can do your school work better, the same, or poorer than your friends?	-.5781
43.	Think of your best friend. Would your best friend say you can do school work better, the same, or poorer than other people your age?	-.5723
35.	If you went to college, do you think you would be one of the best students, about the same as most of the students, or below most of the students?	-.5481
32.	Think of the students in your class. Do you think you can do school work better, the same, or poorer than the other students in your class?	-.5407

38.	What marks do you think you <u>really can</u> get if you try?	-.5272
42.	How good of a student does your best friend expect you to be in school?	-.5218
31.	Think of your friends. Do you think you can do school work better, the same, or poorer than your friends?	-.5200
63.	What grades does your teacher think you can get?	-.5139
47.	What grades does your best friend think you can get?	-.5031
70.	What grades do your mother and father think you <u>can</u> get?	-.4535

Factor 2. - Student Perceived Future Evaluations-Expectations (S.P.F.E.E.)

Proportion of Variance = .0733

41.	How far do you think your best friend believes you will go in school?	-.6367
68.	Do they think you could finish college (mother & father)?	.6103
45.	Does your best friend think you could finish college?	.6064
69.	Remember you need more than four years of college to be a teacher or doctor. Do your mother and father think you could do that?	.5978
46.	Remember you need more than four years of college to be a teacher or doctor. Does your best friend think you could do that?	.5865
64.	How far do you think your parents believe you will go in school?	-.5789
9.	If you could go as far as you wanted in school, how far would you like to go?	.5476
57.	How far do you think <u>the teacher you like best</u> believes you will go in school?	-.5428
62.	Remember you need more than four years of college to be a teacher or doctor. Does your teacher think you could do that?	.5242
61.	Does your teacher think you could finish college?	.5237
36.	If you want to be a doctor or a teacher you need more than four years of college. Do you think you could do that?	.4234
34.	Do you think you could finish college?	.4108
14.	If most of the students here could go as far as they wanted in school how far would they go?	-.3939

Factor 3. - Student Reported Sense of Futility (S.R.S.O.F.)

Proportion of Variance = .0549

Question #		Factor Loading Score
30.	You have to be lucky to get good grades in this school.	.5650
27.	People like me will never do well in school even though we try hard.	.5347
53.	Of the teachers that you know in this school how many don't care how hard the student works as long as he passes?	.5332
50.	Of the teachers that you know in this school how many don't care if the students get bad grades?	.5215
52.	Of the teachers that you know in this school how many make the students work too hard?	.4831
29.	In this school students like me don't have any luck.	.4258
49.	How many teachers in this school tell students to try and get better grades than their classmates?	.4067
26.	People like me will not have much of a chance to do what we want to in life.	.3789
28.	I can do well in school if I work hard.	-.3390
12.	How many students in this school don't care if they get bad grades.	.3279
54.	If the teachers in this school think a student can't do good work how many will try to make him work hard anyway?	.2568
55.	Of the teachers that you know in this school, how many think it is not good to ask more work from a student than he is able to do?	.2340

Factor 4. - Student Perception of School Academic Norms (S.P.S.A.N.)

Proportion of Variance = .0682

23.	How important do you think most of the students in this school feel it is to do well in school work?	-.5446
22.	How important do most of the students in this class feel it is to do well in school work?	-.5310
74.	How many of the students in this school do you think the principal believes will go to college?	-.5067
71.	How many students in this school do you think the principal believes can get high grades?	-.4935

Factor 5. - Teacher Present Evaluations-Expectations of Students in their School (T.P.E.E.)

Proportion of Variance = .1938

Question #		Factor Loading Scores
16.	What percent of the students in this school do you expect to complete high school?	.7537
53.	What percent of the students in this school do you think the principal expects to complete high school?	.7387
25.	What percent of the students in this school would you say want to complete high school?	.6745
61.	How many parents in this school service area expect their children to complete high school?	.6310
26.	What percent of the students in your class would you say want to complete high school?	.5969
38.	Completion of high school is a realistic goal which you set for what percentage of your students?	.5916
17.	What percent of the students in your class do you expect to complete high school?	.5828
14.	On the average what level of achievement can be expected of the students in this school?	.5012
15.	On the average what level of achievement can be expected of the students in your class?	.4168
43.	How many teachers in this school aren't concerned how hard most students work as long as they pass?	-.3124

Not High Load (but .3500 or higher)

24.	How would you rate the academic ability of the students in this school compared to other schools?	.4970
49.	How many students in this school try hard to improve on previous work?	.3705

Factor 6. - Teacher Future Evaluations - Expectations of Students in their School (T.F.E.E.)

Proportion of Variance = .1690

20.	What percent of the students in this school do you expect to complete college?	.8427
21.	What percent of the students in your class do you expect to complete college?	

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20.	What percent of the students in this school do you expect to complete college?	.8427
21.	What percent of the students in your class do you expect to complete college?	

35.	What percent of the students in this school do you think the principal expects to complete college?	.7946
34.	What percent of the students in this school do you think the principal expects to attend college?	.7925
18.	What percent of the students in this school do you expect to attend college?	.7900
19.	What percent of the students in your class do you expect to attend college?	.7765
39.	Completion of college is a realistic goal which you set for what percentage of your students?	.6933
22.	How many of the students in this school are capable of getting mostly A's and B's?	.6650
62.	How many parents in this school service area expect their children to complete college?	.6147
36.	How many students in this school do you think the principal believes are capable of getting mostly A;s and B's?	.7946
37.	How do you think the principal rates the academic ability of students in this school, compared with other schools?	.6062
23.	How many students in your class are capable of getting mostly A s and B's?	.5912
24.	How would you rate the academic ability of the students in this school compared to other schools?	.5259
28.	What percent of the students in your class would you way want to go to college?	.5223
27.	What percent of the students in this school would you say want to go to college?	.5175

Not High Load (but .3500 or higher)

14.	On the average what level of achievement can be expected of the students in this school?	.4345
16.	What percent of the students in this school do you expect to complete high school?	.3549
17.	What percent of the students in your class do you expect to complete high school?	.3641
38.	Completion of high school is a realistic goal which you set for what percentage of your students?	.3661

Factor 7. - Teacher Perception of Parent-Student Push for Educational Achievement (T.P.P.S.P.)

Proportion of Variance = .1012

Question #		Factor Loading Score
57.	How many students in this school don't care when other students do much better than they do?	-.8286
58.	How many students in your class don't care when other students do much better than they do?	.7493
63.	How many of the parents in this school service area don't care if their children obtain low grades?	-.6708
60.	The parents of this school service area are deeply concerned that their children receive a top quality education.	-.6199
53.	How many students in this school are content to do less than they should?	-.5728
54.	How many students in your class are content to do less than they should?	.5648
59.	The parents in this school service area regard this school primarily as a "baby-sitting" agency.	-.4985
64.	How many of the parents in this school service area like feedback from the principal and teachers on how their children are doing in school?	-.4339

Not High Load (but .3500 or higher)

51.	How many students in this school will try hard to do better on tests than their friends do?	-.4929
52.	How many students in your class will try hard to do better on tests than their classmates do?	-.5848
61.	How many of the parents in this school service area expect their children to complete high school?	-.3749

Factor 8. - Teachers Reported Push of Individual Students (T.R.P.I.S.)

Proportion of Variance = .0586

44.	It is unfair to demand more work from a student than he is capable of giving.	.7569
45.	If you think a student is not able to do some of the school work you won't try to push him very hard.	.7076
46.	For most students you are careful not to push them to their frustration level.	.6906
41.	For those students who do not have the resources which will allow them to go to college, you are careful not to promote aspirations in them which probably cannot be fulfilled.	.6117

Not High Load (but .3500 or higher)

15. On the average what level of achievement can be expected of the students in your class? .3549

FACTOR 9. - Teachers Reported Feeling of Job Satisfaction (T.R.F.J.S.)

Proportion of Variance = .0670

Question #		Factor Loading Score
30.	If someone were to offer you an interesting and secure non-teaching-job for $1,000 more a year, how seriously would you consider taking the job?	.7182
31.	If someone were to offer you an interesting and secure non-teaching-job for $3,000 more a year, how seriously would you consider taking the job?	.6769
29.	How much do you enjoy your teaching responsibilities in this school?	.5405

Not High Load (but .3500 or higher)

27.	What percent of the students in this school would you say want to go to college?	.4537
28.	What percent of the students in your class would you say want to go to college?	.4537
59.	The parents in this school service area regard this school primarily as a "baby-sitting" agency.	.3520
64.	How many of the parents in this school service area like feedback from the principal and teachers on how their children are doing in school?	.4013

FACTOR 10. - Teacher Perception of Student Academic Improvability (T.P.S.A.I.)

Proportion of Variance = .0765

55.	How many students in this school will seek extra work so that they can get better grades?	.6305
52.	How many students in your class will try hard to do better on tests than their classmates do?	.6238
51.	How many students in this school will try hard to do better on tests than their friends do?	.6027
56.	How many students in your class will seek extra work so that they can get better grades?	.5997
48.	How many teachers encourage students to seek extra work so that the students can get better grades?	.5785
50.	How many students in your class try hard to improve on previous work?	.5561
40.	How often do you stress to your students the necessity of a post high school education for a good job and/or a comfortable life?	.5125
49.	How many students in this school try hard to improve on previous work?	.4777
47.	How many teachers in this school encourage students to try hard to improve on previous test scores?	.3951